5 FAH-2 H-700
MANAGING RADIO NETWORKS

5 FAH-2 H-710
RADIO COMMUNICATION

(TL:TEL-1;   07-01-1998)

5 FAH-2 H-711 TERMS

(TL:TEL-1;   07-01-1998)
(Uniform State/USAID/USIA)

a.   Radio communication is the use of electromagnetic waves in a radio frequency range to transmit or receive electric signals without wire connecting the transmit and receive points.

b.   A radio repeater receives a radio signal at one frequency and retransmits the signal on another frequency at a higher location and/or power level.   Repeaters and hi-gain antenna systems enhance radio signals.

c.   Typical radio wave frequencies are measured in megahertz, one million cycles per second. The Department uses radios that broadcast in one of three frequency ranges, defined below.

(1)   **High Frequency**—a radio frequency between 3 and 30 megahertz.

(2)   **Very High Frequency**—a band of radio frequencies between 30 and 300 megahertz.

(3)   **Ultrahigh Frequency**—a band of radio frequencies from 300 to 3,000 megahertz.

5 FAH-2 H-712 INTERNATIONAL AGREEMENTS

5 FAH-2 H-712.1 Authorities

(TL:TEL-1;   07-01-1998)
(Uniform State/USAID/USIA)

The Department of State coordinates frequency use for U.S. Government foreign affairs agencies with host foreign governments, except for certain international military channels that have been established for

military frequency planning and coordination. International frequency allocation and registration is accomplished through the International Telecommunications Union (ITU) in accordance with current international agreements. The International Frequency Registration Board (IFRB), a permanent organization of the ITU, publishes the International Frequency List (IFL), which is based on the Master International Frequency Register (MIFR) maintained by the IFRB.

5 FAH-2 H-712.2 Host Government Permission to Use Frequencies

(TL:TEL-1; 07-01-1998)
(Uniform State/USAID/USIA)

a.   Article 27 of the Vienna Convention on Diplomatic Relations states that a diplomatic mission may install and use a wireless transmitter only with the consent of the host government. The Chief of Mission (COM) or designee obtains consent to use frequencies through formal diplomatic channels. The IPC should permanently file diplomatic notes and all other records regarding permission to use frequencies. For further guidance consult post's Deputy Chief of Mission.

b.   Host government consent to use frequencies should not be confused with providing the host government detailed information about post's networks. Under no circumstances should mission personnel advise host government officials as to how many radio units have been distributed to mission personnel. The IMO should inform the COM immediately if host government officials request detailed information about post's radio inventory.

5 FAH-2 H-712.3 Interoperability of Radio Networks

(TL:TEL-1; 07-01-1998)
(Uniform State/USAID/USIA)

The COM has the authority to disclose radio frequencies used by the mission to "friendly" third country missions, international organizations or U.S. businesses. The purpose of exchanging frequencies is to facilitate the broadcast of information in emergency situations. The COM determines which missions or organizations are considered friendly. If post intends to share frequencies with third countries, follow the guidelines below.

(1)   The COM must approve the disclosure of mission frequencies to third parties.

(2)   The RSO must participate in frequency-sharing plans.

(3)   The Department will accept no financial responsibility to provide radio equipment or resources to implement interoperability. The post must pay for any units it chooses to exchange with third country missions.

(4)   The IMO should establish procedures to test the frequency of exchanged equipment.

(5)   The designated party may only use a mission frequency or radio in tests scheduled by the IMO or in an emergency.

5 FAH-2 H-713 PURPOSE OF RADIO NETWORKS

5 FAH-2 H-713.1 Security Enhancement

(TL:TEL-1; 07-01-1998)
(Uniform State/USAID/USIA)

The primary purpose of radio networks is to enhance the security and protection of U.S. Government personnel and property at posts abroad. The Department establishes radio networks where host government telecommunications infrastructures are inadequate or unreliable. Radios are used when host government systems fail, when patrolling travel routes of official visitors to post, and in emergencies.

5 FAH-2 H-713.2 Emergency Communication

(TL:TEL-1; 07-01-1998)
(Uniform State/USAID/USIA)

Radio contact is ideal for rapidly disseminating information during emergency situations, because radio broadcasts provide paging and immediate, simultaneous communication to multiple network participants.

5 FAH-2 H-713.3 Emergency Action Plan Networks

(TL:TEL-1; 07-01-1998)
(Uniform State/USAID/USIA)

The Department's Emergency Action Plan (EAP) is the primary document that provides procedures and guidance to prepare post personnel for their roles and activities in crisis situations. EAP networks, whether HF, VHF or UHF, are used to broadcast official instructions to mission personnel during an emergency, evacuation or potentially dangerous situation. EAP networks are specially configured with signal-enhancing equipment to ensure reliable radio contact among participating network subscribers. The IMO provides radio network configuration information and revisions for post's EAP.

5 FAH-2 H-714 SECURITY RESTRICTIONS

(TL:TEL-1;   07-01-1998)
(Uniform State/USAID/USIA)

Any radio equipment to be used in a controlled access area must comply with Department Unclassified Electrical/Electronic Equipment Security Standards.   Radio equipment installed, stored, and used exclusively in the IPC must be handled in accordance with applicable DS security standards and guidelines.

5 FAH-2 H-715 ON-AIR PROTOCOLS

(TL:TEL-1;   07-01-1998)
(Uniform State/USAID/USIA)

General on-air protocols for operating radio equipment are derived from Federal Communications Commission (FCC) guidelines. The RSO and IMO should enforce the following protocols to maintain the security of the network and to keep EAP channels clear for urgent or emergency communications.

(1)   Keep communiqués brief and clearly state your intention or information you wish to convey.

(2)   Use call signs and mutually recognizable code words when identifying network participants, mission personnel or locations.

(3)   Use the EAP channel only for substantive communication.   If permitted/available at post, use secondary channels for administrative purposes.

(4)   End each transmission by saying "over."   End radio contact by saying "out."

(5)   Use the international phonetic alphabet (see 5 FAH-2 H-715 Exhibit H-715) to spell words or acronyms that may not transmit clearly.

5 FAH-2 H-716 THROUGH H-719 UNASSIGNED

5 FAH-2 H-715 Exhibit H-715
INTERNATIONAL PHONETIC ALPHABET

(TL:TEL-1;   07-01-1998)
(Uniform State/USAID/USIA)

A—ALPHA
B—BRAVO
C—CHARLIE
D—DELTA
E—ECHO
F—FOXTROT
G—GOLF
H—HOTEL
I—INDIA
J—JULIETT
K—KILO
L—LIMA
M—MIKE
N—NOVEMBER
O—OSCAR
P—PAPA
Q—QUEBEC
R—ROMEO
S—SIERRA
T—TANGO
U—UNIFORM
V—VICTOR
W—WHISKEY
X—XRAY
Y—YANKEE
Z—ZULU